

Fig 1

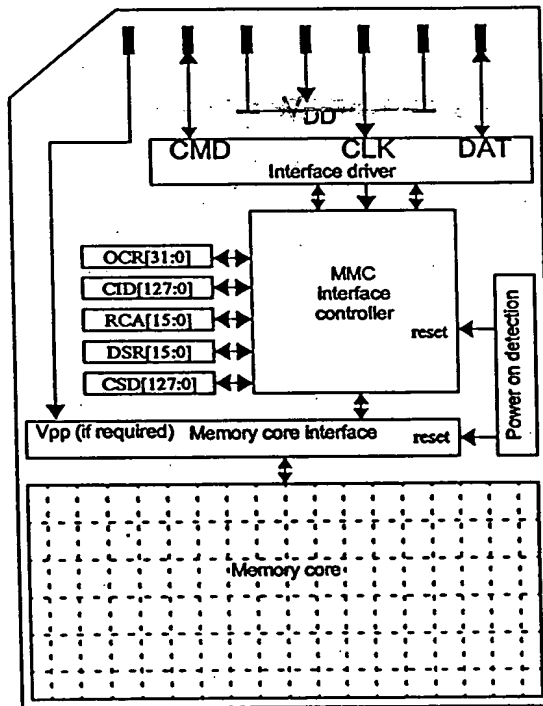


Fig 2

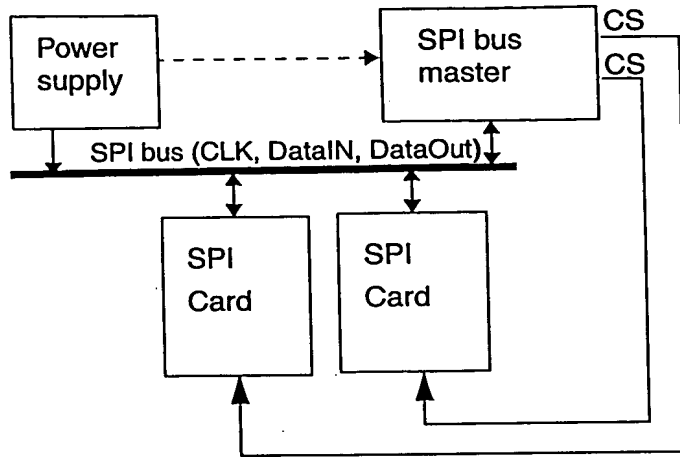


Fig 3

Pin #	MMC			SPI		
	Name	Type <sup>1</sup>	Description	Name	Type	Description
1	RSV	NC	Reserved for future use	CS	I	Chip Select (neg true)
2	CMD	I/O/PP/OD	Command/Response	DI	I/PP	Data In
3	V <sub>SS1</sub>	S	Supply voltage ground	VSS	S	Supply voltage ground
4	V <sub>DD</sub>	S	Supply voltage	VDD	S	Supply voltage
5	CLK	I	Clock	SCLK	I	Clock
6	V <sub>SS2</sub>	S	Supply voltage ground	VSS2	S	Supply voltage ground
7	DAT	I/O/PP	Data	DO	O/PP	Data Out

Fig 4

OCR bit position	VDD voltage window
0-7	reserved
8	2.0-2.1
9	2.1-2.2
10	2.2-2.3
11	2.3-2.4
12	2.4-2.5
13	2.5-2.6
14	2.6-2.7
15	2.7-2.8
16	2.8-2.9
17	2.9-3.0
18	3.0-3.1
19	3.1-3.2
20	3.2-3.3
21	3.3-3.4
22	3.4-3.5
23	3.5-3.6
24-30	reserved
31	card power up status bit (busy) <sup>1</sup>

Fig 5

Station	Time	Lat.	Long.	Alt.	Wind	Temp.	Hum.	Press.	Clouds	Remarks
1	0000	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
2	0100	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
3	0200	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
4	0300	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
5	0400	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
6	0500	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
7	0600	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
8	0700	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
9	0800	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
10	0900	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
11	1000	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
12	1100	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
13	1200	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
14	1300	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
15	1400	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
16	1500	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
17	1600	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
18	1700	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
19	1800	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
20	1900	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
21	2000	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
22	2100	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
23	2200	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear
24	2300	34° 15' N	122° 00' W	10	000	50	85	30.00	000	Clear

Name	Field	Width	CID-slice
Manufacturer ID	MID	24	[127:104]
Card individual number	CIN	96	[103:8]
CRC7 checksum	CRC	7	[7:1]
not used, always '1'	-	1	[0:0]

Fig 6

Name	Field	Width	Cell Type	CSD-slice
CSD structure	CSD_STRUCTURE	2	R	[127:126]
MMC protocol version	MMC_PROT	4	R	[125:122]
reserved		2	R	[121:120]
data read access-time-1	TAAC	8	R	[119:112]
data read access-time-2 in CLK cycles (NSAC*100)	NSAC	8	R	[111:104]
max. data transfer rate	TRAN_SPEED	8	R	[103:96]
card command classes	CCC	12	R	[95:84]
max. read data block length	READ_BL_LEN	4	R	[83:80]
partial blocks for read allowed	READ_BL_PARTIAL	1	R	[79:79]
write block misalignment	WRITE_BLK_MISALIGN	1	R	[78:78]
read block misalignment	READ_BLK_MISALIGN	1	R	[77:77]
DSR Implemented	DSR_IMP	1	R	[76:76]
external Vpp	VPROG	2	R	[75:74]
device size mantissa	C_SIZE_MANT	8	R	[73:66]
device size exponent	C_SIZE_EXP	4	R	[65:62]
max. read current @V <sub>DD</sub> min	VDD_R_CURR_MIN	3	R	[61:59]
max. read current @V <sub>DD</sub> max	VDD_R_CURR_MAX	3	R	[58:56]

Name	Field	Width	Cell Type	CSD-slice
max. write current @V <sub>DD</sub> min	VDD_W_CURR_MIN	3	R	[55:53]
max. write current @V <sub>DD</sub> max	VDD_W_CURR_MAX	3	R	[52:50]
max. V <sub>pp</sub> current	VPP_CURR	3	R	[49:47]
erase sector size	SECTOR_SIZE	5	R	[46:42]
erase group size	ERASE_GRP_SIZE	5	R	[41:37]
write protect group size	WP_GRP_SIZE	5	R	[36:32]
write protect group enable	WP_GRP_ENABLE	1	R	[31:31]
manufacturer default ECC	DEFAULT_ECC	2	R	[30:29]
stream write speed factor	R2W_FACTOR	3	R	[28:26]
max. write data block length	WRITE_BL_LEN	4	R	[25:22]
partial blocks for write allowed	WRITE_BL_PARTIAL	1	R	[21:21]
reserved		5	R	[20:16]
reserved		3	R/W	[15:13]
copy flag (OTP)	COPY	1	R/W	[12:12]
permanent write protection	PERM_WRITE_PROTECT	1	R/W	[11:11]
temporary write protection	TMP_WRITE_PROTECT	1	R/W/E	[10:10]
ECC code	ECC	2	R/W/E	[9:8]
CRC	CRC	7	R/W/E	[7:1]
not used, always '1'	-	1	-	[0:0]

Fig 7

